

ART 34 A4DT

WHAT IS CLAIMED IS:

1. Floor covering of a multilayer plastic web or sheet having a three-dimensional optical appearance, comprising a base layer that is surface embossed on one side and a transparent cover layer arranged on the embossed surface of the base layer and joined to it in a nonpositive manner, having the embossed structure transferred from the base layer in the underside of the cover layer.
2. Floor covering of a multilayer plastic web or sheet as claimed in Claim 1, wherein the transparent cover layer is printed on the surface facing the base layer.
3. Floor covering of a multilayer plastic web or sheet as claimed in Claim 1 or 2, wherein the embossed surface of the base layer is printed.
4. Floor covering of a multilayer plastic web or sheet as claimed in Claim 1 or 2, wherein another layer is provided between the transparent cover layer and the embossed base layer.
5. Floor covering of a multilayer plastic web or sheet as claimed in Claim 4, whereby the additional layer is printed on its surface which faces the cover layer.
6. Floor covering of a multilayer plastic web or sheet as claimed in any one or more of Claims 1 through 5, wherein the base layer is a film.

ART 34 ADT

7. Floor covering of a multilayer plastic web or sheet as claimed in Claim 5, wherein the base layer is a laminate of at least two films.
- 5 8. Floor covering of a multilayer plastic web or sheet as claimed in any one or more of Claims 1 through 7, wherein the transparent cover layer is a film.
9. Floor covering of a multilayer plastic web or sheet as claimed in Claim 8, wherein the transparent cover layer is a laminate of at least two films.
- 10 10. Floor covering of a multilayer plastic web or sheet as claimed in any one or more of Claims 1 through 9, wherein the transparent cover layer has embossing on its surface facing away from the embossed base layer.
- 15 11. Floor covering of a multilayer plastic web or sheet as claimed in Claim 10, wherein the embossing has a predetermined structure.
12. Floor covering of a multilayer plastic web or sheet as claimed in Claim 10 or 11, wherein the predetermined structure is a profile with elevations and recesses, the average distance between the profile tips in the midline (S_m) being more than 200 μm and
- 20 less than 1000 μm .

ART 34 11/07

13. Floor covering of a multilayer plastic web or sheet as claimed in any one or more of Claims 10 through 12, wherein the height of the elevations (peak-to-valley roughness) is in the range of 20 μm to 200 μm .
- 5 14. Floor covering of a multilayer plastic web or sheet as claimed in any one or more of Claims 1 through 13, wherein the transparent cover layer and the additional layer optionally provided between the cover layer and the base layer have a lower softening point than does the base layer.
- 10 15. Floor covering of a multilayer plastic web or sheet as claimed in any one or more of Claims 1 through 14, wherein a finish or a lacquer is applied to the surface of the transparent cover layer.
- 15 16. Floor covering of a multilayer plastic web or sheet as claimed in any one or more of Claims 1 through 15, wherein an adhesive layer is provided on the surface of the base layer facing away from the clear layer.
17. Method for producing a floor covering of a multilayer plastic web or sheeting having a three-dimensional optical appearance, comprising the following steps:
- 20 - providing a layer of a thermoplastic material and embossing a surface of the layer to obtain a base layer with surface embossing on one side,
- providing a transparent cover layer of a thermoplastic material,

- arranging the transparent cover layer on the embossed surface of the base layer, and
- nonpositive joining of the layers such that the embossing of the base layer is transferred to the surface of the transparent cover layer which is in contact with the base layer, so that the multilayer floor covering of a multilayer plastic web or sheet with a three-dimensional optical appearance is obtained.

18. Method as claimed in Claim 17, wherein the transparent cover layer is printed on the surface facing the base layer before being joined to the base layer.

19. Method as claimed in Claim 17 or 18, wherein the embossed surface of the base layer is printed before being joined to the transparent cover layer.

20. Method as claimed in any one or more of Claims 17 through 19, wherein before joining the layers, another layer is introduced between the transparent cover layer and the embossed base layer.

21. Method as claimed in Claim 20, wherein the additional layer is printed on its surface which faces the transparent cover layer before being introduced between the transparent cover layer and the embossed base layer.

22. Method as claimed in any one or more of Claims 17 through 21, wherein the base layer is a film.

NET 34 AUGOT

23. Method as claimed in Claim 22, wherein the base layer is a laminate of at least two films.

5 24. Method as claimed in any one or more of Claims 17 through 23, wherein the transparent cover layer is a film.

25. Method as claimed in Claim 24, wherein the transparent cover layer is a laminate of at least two films.

10

26. Method as claimed in any one or more of Claims 17 through 25, wherein the transparent cover layer is embossed on its surface which faces away from the base layer either before or after being joined to the embossed base layer and optionally the additional layer.

15

27. Method as claimed in any one or more of Claims 17 through 26, wherein the nonpositive joining of the layers is accomplished using temperature and pressure.

20

28. Method as claimed in any one or more of Claims 17 through 27, wherein the transparent cover layer and optionally the additional layer each have a lower softening point than the embossed base layer.

29. Method as claimed in any one or more of Claims 17 through 28, wherein the nonpositive joining of the layers is accomplished by passing the layers between rollers.

30. Method as claimed in Claim 29, wherein the roller in contact with the cover layer is heated and/or the roller in contact with the base layer is not heated or is cooled.

31. Method as claimed in any one or more of Claims 17 through 30, wherein the transparent cover layer and optionally the additional layer are preheated before the nonpositive joining to the embossed base layer.

32. Method as claimed in any one or more of Claims 17 through 31, wherein the profile tips of the embossed base layer are wetted with a solvent before being joined to the printed additional layer and the transparent cover layer.

33. Method as claimed in any one or more of Claims 17 through 31, wherein the printing of the profile tips of the embossed and printed base layer is removed before joining it to the transparent cover layer.